

***Remarks***

Reconsideration of this Application is respectfully requested.

Claims 1-26 are pending in the application, with claims 1, 12, 24, and 25 being the independent claims. Based on the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

***Rejections under 35 U.S.C. § 112***

The Examiner has rejected claims 1-26 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention. In particular, the Examiner argues that "independent claims 1, 12, 24 and 25 fail to claim with particularity the step of determining market to market (MTM) collateral values for each of the sub-portfolios of obligations."

The specification of the application, however, defines the concept of mark to market value and details the process of determining this value. The specification states, "Collateral can be posted based on two types of obligations: actual and potential. When collateral is posted to cover an actual expense (i.e., a loss that has already occurred on a position but has not yet been settled), it is called 'mark to market' (MTM) collateral."

(Specification, page 2, lines 3-9). Further, the specification states,

"The centralized collateral management method involves the provider first obtaining the mark to market exposure between each counterparty using the system. This can be done in two ways. First, the provider can obtain mark to

market exposures by having each user or a representative directly submit their mark to market exposure associated with each of their counterparties. Alternatively, the provider can obtain mark to market exposures by receiving a plurality of market positions from each of the users. These market positions can be divided into the positions associated with a single counterparty representing a sub-portfolio. The provider can then obtain market data in order to evaluate each of the market positions and determine a mark to market (MTM) value for each of the sub-portfolios. The provider can also give the obtained positions to a third party (i.e., an external service) and have the third party provide MTM values for each of the sub-portfolios." (page 7, line 25 through page 8, line 7).

Also, referring to FIGs. 8 and 9, the specification states,

"In step 906, similar to step 806 of FIG. 8, each of the sub-portfolios MTM value is determined. This determination is made by valuing each of the assets in the respective sub-portfolios under a current market information. In an alternative embodiment of the invention, the MTM value of each sub-portfolio can be reported directly to the CMS 500. This alternative embodiment would obviate the need to perform steps 904 through 906." (page 19, lines 15-20).

The step of determining mark to market values in claims 1, 12, 24, and 25 is thus well-defined in the specification. This step is claimed with sufficient particularity in these claims, when read in conjunction with the specification.

The Examiner also argues that claims 12 and 25 fail to claim with particularity the step of determining anticipatory collateral values for each of the portfolios and sub-portfolios of each of the users. The concept of anticipatory collateral is well defined in the specification, however. The specification states, "If collateral is posted to cover potential losses that have not yet occurred, it is called 'anticipatory' collateral." (page 2, lines 9 and 10). Further, the specification states,

"Anticipatory collateral also follows the same lines as the trade interactions shown in FIG. 1A. However, unlike

MTM collateral, both counterparties in a trading pair may be posting anticipatory collateral. For example, in a situation where A buys from B, A needs to provide B with anticipatory collateral to protect against the possibility of falling prices, while B needs to provide A with anticipatory collateral to protect against the possibility of rising prices." (page 3, lines 6-11).

Moreover, the process of determining anticipatory collateral is also defined in the specification. Referring to FIG. 9, the specification states that a dynamic value at risk calculation can be performed to obtain the anticipatory collateral value for a sub-portfolio (page 20, line 9 through page 21, line 12). A detailed example of such a method is also presented (page 23, line 11 through page 27, line 2). Therefore, the step of determining anticipatory collateral values for portfolios and sub-portfolios is well defined in the specification. The step is thus claimed with particularity in claims 12 and 25, when read in light of the specification.

The Examiner also argues that the step of providing MTM collateral credits up to the MTM gains on each of the sub-portfolios is not claimed with particularity in claims 1 and 24. Referring to FIG. 9, however, the specification explains the concept of MTM collateral credits and the provision thereof. The specification states,

"In step 907, the CMS 500 calculates and provides MTM collateral credits to each company. These credits are issued whenever a company has realized a net profit from a counterparty. These credits allow unrealized position profits to be used as collateral. The value of the MTM collateral credit is based on the net value of each company's sub-portfolio. If a company is in a net positive market to market position then MTM collateral credits may be granted to a value up to the market to market value."

An equation is then presented that mathematically defines the total value of MTM collateral credits with respect to a company (page 19, line 27 through page 20, line 8).

For at least these reasons, therefore, the step of providing MTM collateral credits up to the MTM gains on each of a user's sub-portfolios is claimed with particularity when read in light of the specification.

The Examiner also argues that the step of providing anticipatory collateral credits is not claimed with particularity in claims 12 and 25. The concept of providing such credits is explained, however, in the specification. The specification states,

"Consequently, in step 912, anticipatory collateral credits are issued which represent a guarantee provided by the CMS provider 502 based on the analysis of each participant's net (total) portfolio within the CMS 500. If a company defaults, the CMS provider 502 will provide the funds to the counterparty equal to the value of the anticipatory collateral credit. This allows each counterparty to receive the desired amount of anticipatory collateral, while each company in the trading group must provide only anticipatory collateral on the total portfolio. Thus, all diversification and hedge positions are taken advantage of without revealing each users trading sub-portfolio to (actual or perceived) competitors." (page 21, lines 19-28).

Hence, the step of providing anticipatory collateral credits is explained in the specification. This step is therefore claimed with particularity in claims 12 and 25, when read in conjunction with the specification.

With respect to claims 1, 12, 24 and 25, the Examiner argues that the limitation regarding the minimization of the total amount of collateral posted by users is unduly vague. In particular, the Examiner is unclear regarding how losses are protected by collateral management as described in the application, and regarding the scope of protection. With respect to the concept of collateral, the specification states,

"Collateral is a simple way for party A to protect against the risk of the default on an obligation by a counterparty (i.e., party B). If a counterparty has posted collateral, then the collateral can be taken to offset the loss due to

the default. Collateral can be posted based on two types of obligations: actual and potential." (page 2, lines 3-7).

With respect to the use of collateral credit, the specification states,

"The collateral credits can exist primarily in a book entry form within the CMS but represent an obligation by the CMS provider organization (or its insurers) to pay the counterparty up to the face amount, if the holder defaults and other forms of collateral are insufficient. This is similar to a standby letter of credit." (page 13, lines 1-5).

Hence, the specification clearly states how losses are protected by collateral credits.

When these claim terms are read in view of the specification, they clearly define the scope of protection. Claims 1, 12, 24 and 25 are therefore not unduly vague when read in conjunction with the specification.

With respect to claim 2, the Examiner argues that the phrases "market positions" and "market data" are indefinite in scope. These terms, however, are explained in the specification. According to the specification, "A 'position' refers to the amount of a security or a commodity (e.g., note, stock, bond, commodity option contracts, etc.) either owned or owed by a party." (page 2, lines 11 and 12). Also, in reference to FIG. 8, the specification states, "These positions can include, but are not limited to, forwards, options (American, European, Asian, Barrier, Puts, Calls, and or exotics), futures, swaps, and accounts receivable." (page 16, lines 19-21).

Moreover, the concept of market data is also defined in the specification.

Referring to the step of obtaining market data in FIG. 8, the specification states,

"In step 804B, appropriate data is also obtained to allow accurate pricing of any of the above products. Necessary data can include, but are not limited to, spot prices, forward price curves, price spreads, spot volatility, forward volatility curve, volatility smile

structure, forward correlations between assets, and interest rate curves." (page 16, lines 22-26).

In light of these passages, claim 2 and its terms "market positions" and "market data" are sufficiently definite in scope when read in light of the specification.

With respect to claims 7 and 18, the Examiner argues that the step of rehypothecation is claimed without particularity. The concept of rehypothecation, however, is explained in the specification. The specification states "... as long as both parties have agreed that rehypothecation is acceptable, any party receiving collateral can reuse it and post it as collateral for their own positions." The specification goes on to provide a number of references (incorporated by reference) that detail the concept of rehypothecation. The specification continues, "Even though the CMS 500 is not the counterparty to every trade -- unlike an exchange -- rehypothecation of collateral allows users to decrease the amount of collateral that they must post." (page 18, lines 16-28). Hence, the reypothecation process is well defined and claimed with sufficient particularity in light of the specification.

With respect to claims 8-10, 19, 20 and 22, the Examiner argues that the limitations regarding mutualization are claimed without particularity. Mutualization is clearly defined in the specification, however. The specification states, "In addition, clearinghouses for exchanges generally share the credit risk associated with default between and among its members. This process is known as 'mutualization of risk.'" (page 6, lines 1-4). Hence the limitations regarding mutualization are claimed with sufficient particularity when read in conjunction with the specification.

Referring to claim 12, the Examiner also argues that the phrase "anticipatory collateral value for the portfolios" is indefinite. The Examiner argues that the

portfolio has previously been defined as only a bundle of assets and not a bundle of liabilities. First, as discussed above, the specification clearly explains the concept of anticipatory collateral value and the determination thereof (page 2, lines 3-10; page 3, lines 6-11; page 20, line 9 through page 21, line 12; and page 23, line 11 through page 27, line 2). As to the definition of "portfolio," nowhere does the application define the term as referring only to a bundle of assets and not a bundle of liabilities. On the contrary, a portfolio can include obligations. Referring to FIG. 1A, the specification states, "Each line within FIG. 1A represents an active portfolio of obligations between company A and a specific counterparty." (page 2, lines 19-21). The phrase "anticipatory collateral value for the portfolios" of claim 12 is therefore not indefinite in the context of the specification.

Also with respect to claim 12, the Examiner argues that the phrase "anticipatory collateral value of the sub-portfolios and portfolios" is undefined. As stated above, however, the concept is clearly explained in the specification (page 20, line 9 through page 21, line 12).

For at least these reasons, Applicants request that the rejections under 35 U.S.C. 112 be reconsidered and withdrawn.

***Rejections under 35 U.S.C. § 102***

The Examiner has rejected claims 1-26 under 35 U.S.C. § 102(b) as anticipated by "A Question of Collateral," an article by Peter Lee. In the alternative, the Examiner rejects these claims under 35 U.S.C. § 103(a) as obvious over the Lee reference. The Examiner first argues that the prior art teaches the general concept of

the Applicant's collateral management system. Lee mentions centralized collateral management systems (Lee, page 1, paragraph 4). Lee, however, does not teach the concept of collateral credits either with respect to mark to market collateral or anticipatory collateral. The provision of collateral credits by a collateral management system is recited in each of the independent claims of the present application. Nor does Lee address the minimization of total collateral that must be posted by each user. This, too, is a feature of the invention that is recited in each of independent claims 1, 12, 24 and 25. Lee discusses some of the benefits of centralized collateral management, such as standardization and automation, but says nothing about the minimization of collateral required of users (Lee, page 4, paragraph 4).

In addition, the Examiner argues that it is well known to have the right to rehypothecate, citing Lee, page 4, paragraph 4. The Examiner describes rehypothecation as the critical limitation of the present invention. Rehypothecation, however, is not addressed in any of the independent claims of the present invention. Rehypothecation is addressed only in dependent claims 7 and 18. For at least these reasons, Applicants traverse the Examiner's characterization of rehypothecation as the critical limitation of the present application.

Therefore, there are claim elements regarding collateral credits and minimization of collateral required by users in each of the independent claims of the present application. Moreover, these features are not taught by Lee. For at least these reasons, Lee does not anticipate the present invention. In addition, these limitations are neither suggested nor otherwise made obvious by the Lee reference.



For at least these reasons, Applicants request that the rejections under 35  
U.S.C. 112 be reconsidered and withdrawn.

### ***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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